

Wetland Water Quality Standards and Section 401 Water Quality Certification Rulemaking

A presentation to the Indiana Water Pollution Control Board
March 8, 2000

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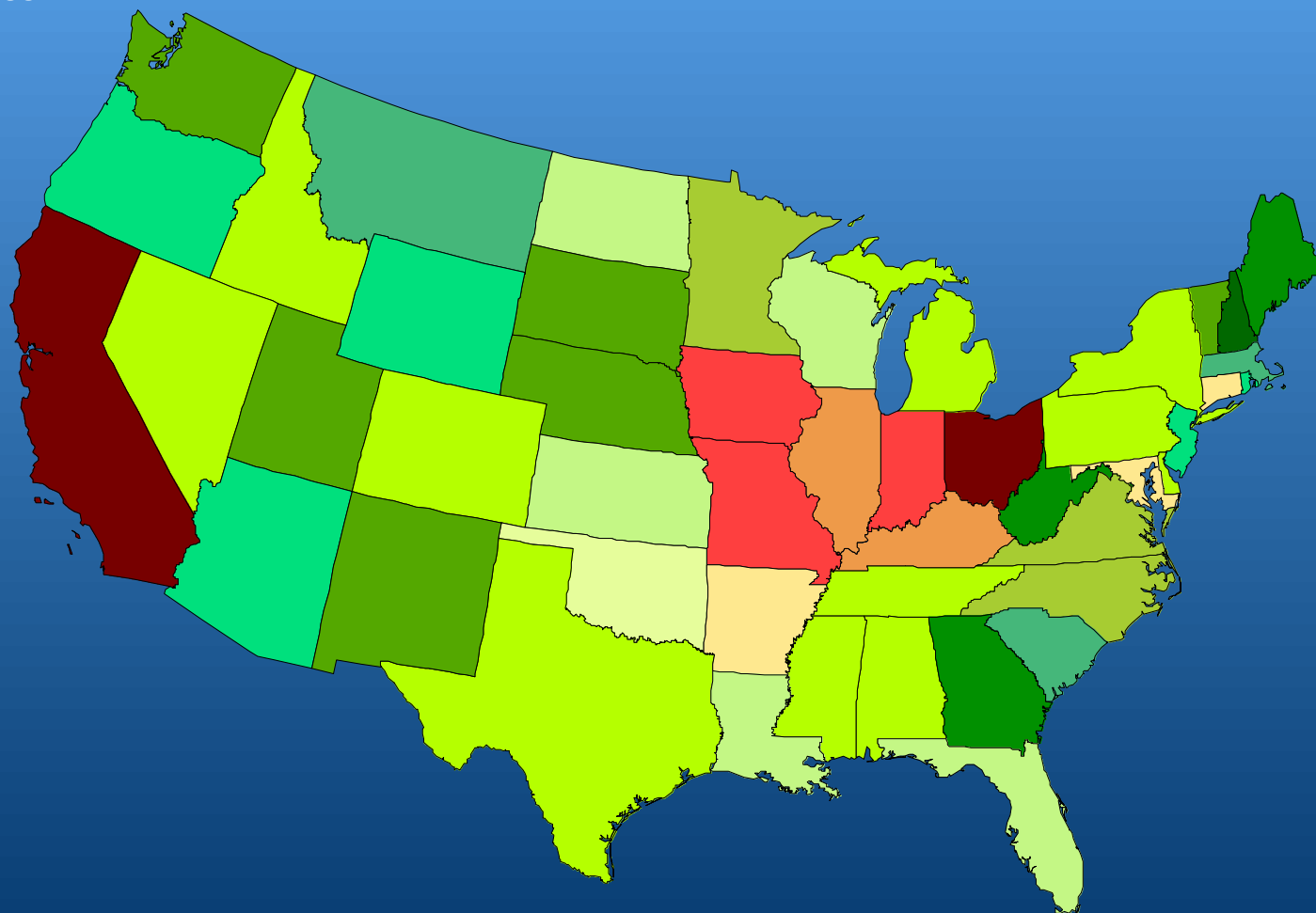
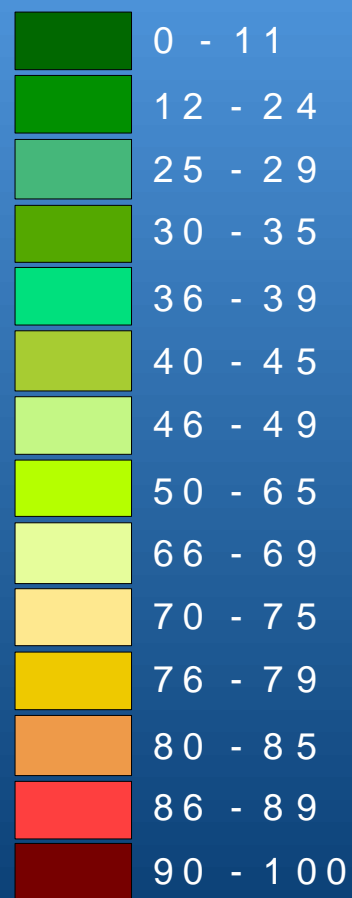
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Presentation Outline

- P An overview of Indiana's wetland resources
- P A summary of IDEM's current regulatory program
- P A preview of IDEM's proposed rules:
 - Wetland Water Quality Standards
 - Section 401 Water Quality Certification Review Procedures
- P A rationale for IDEM's approach

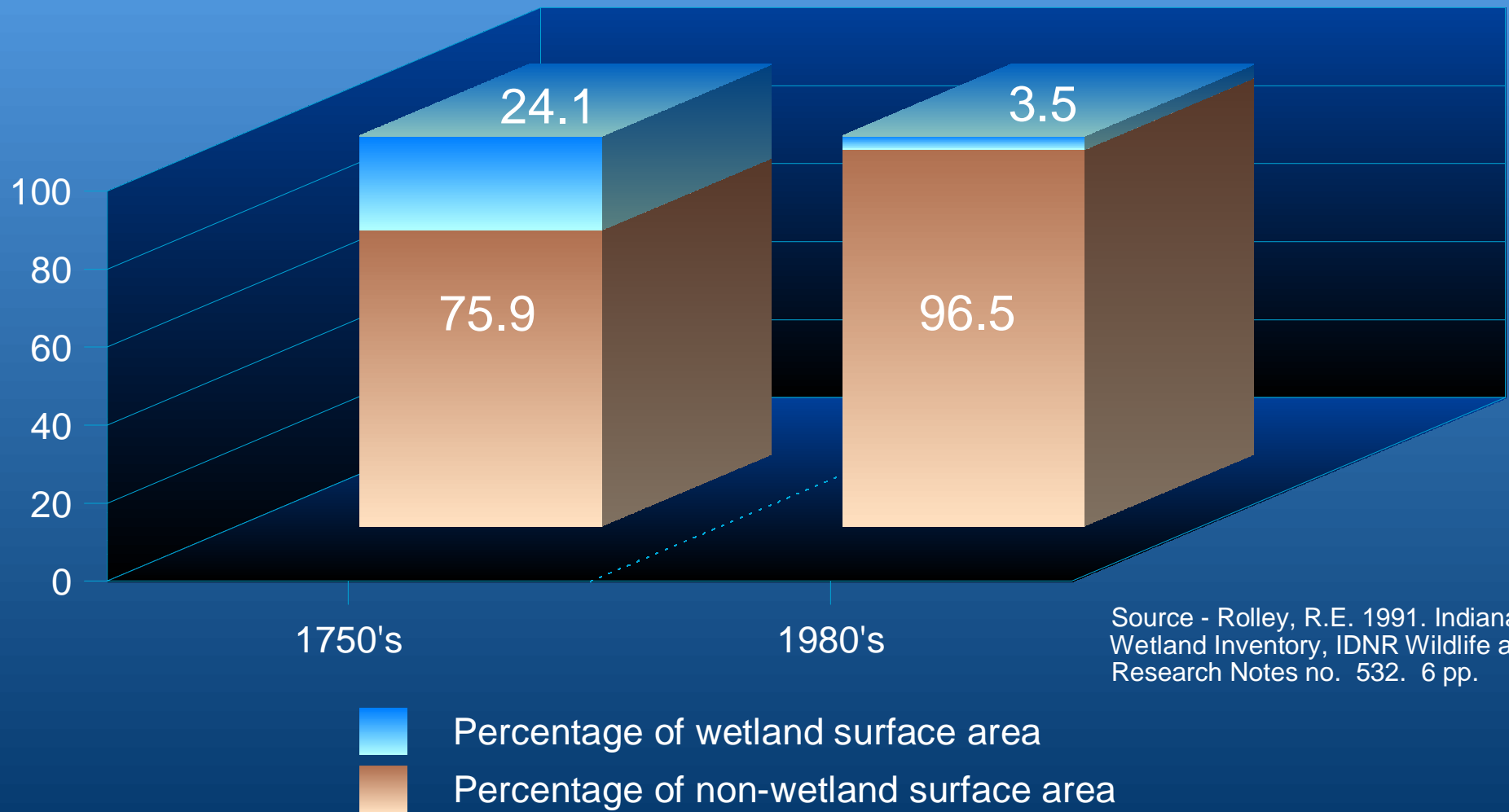
Changing Landscape - Wetland Losses

Percentage of wetland loss



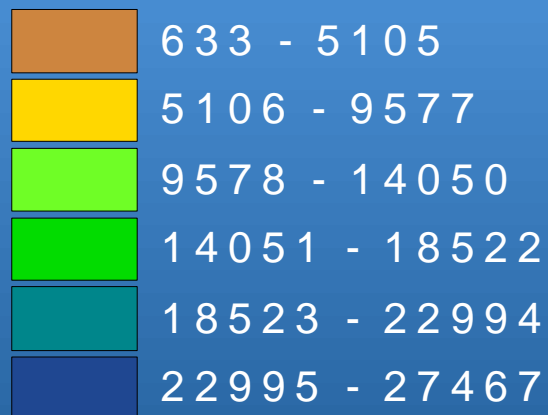
Source - U.S. Environmental Protection Agency

Landuse Changes - Indiana's Vanishing Wetlands

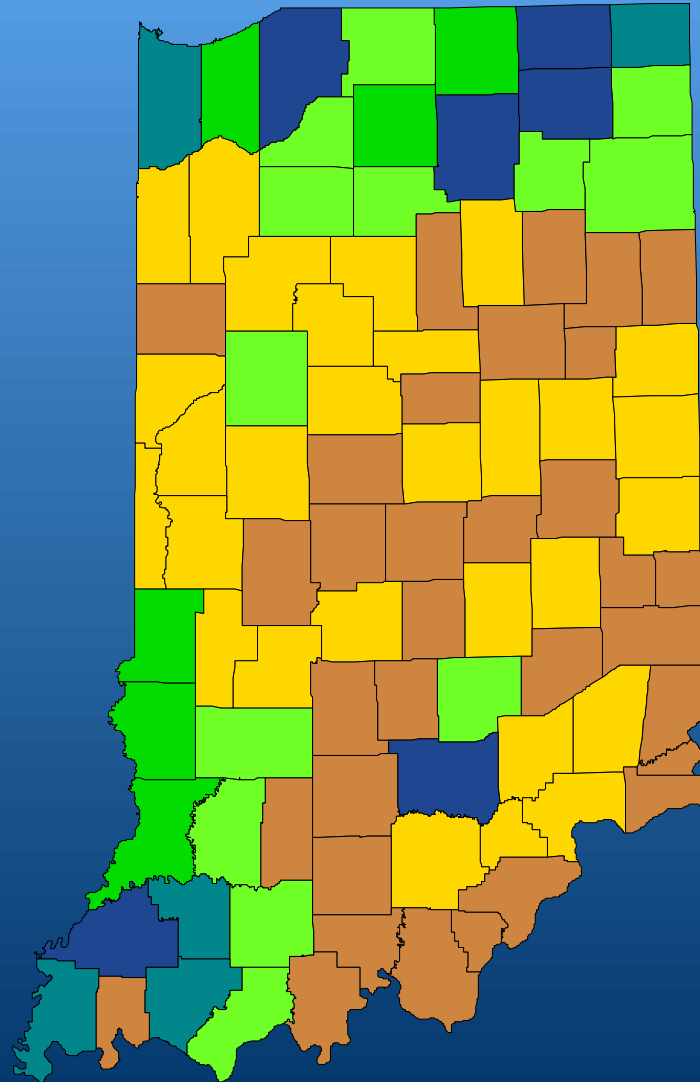


Distribution of Wetlands in Indiana

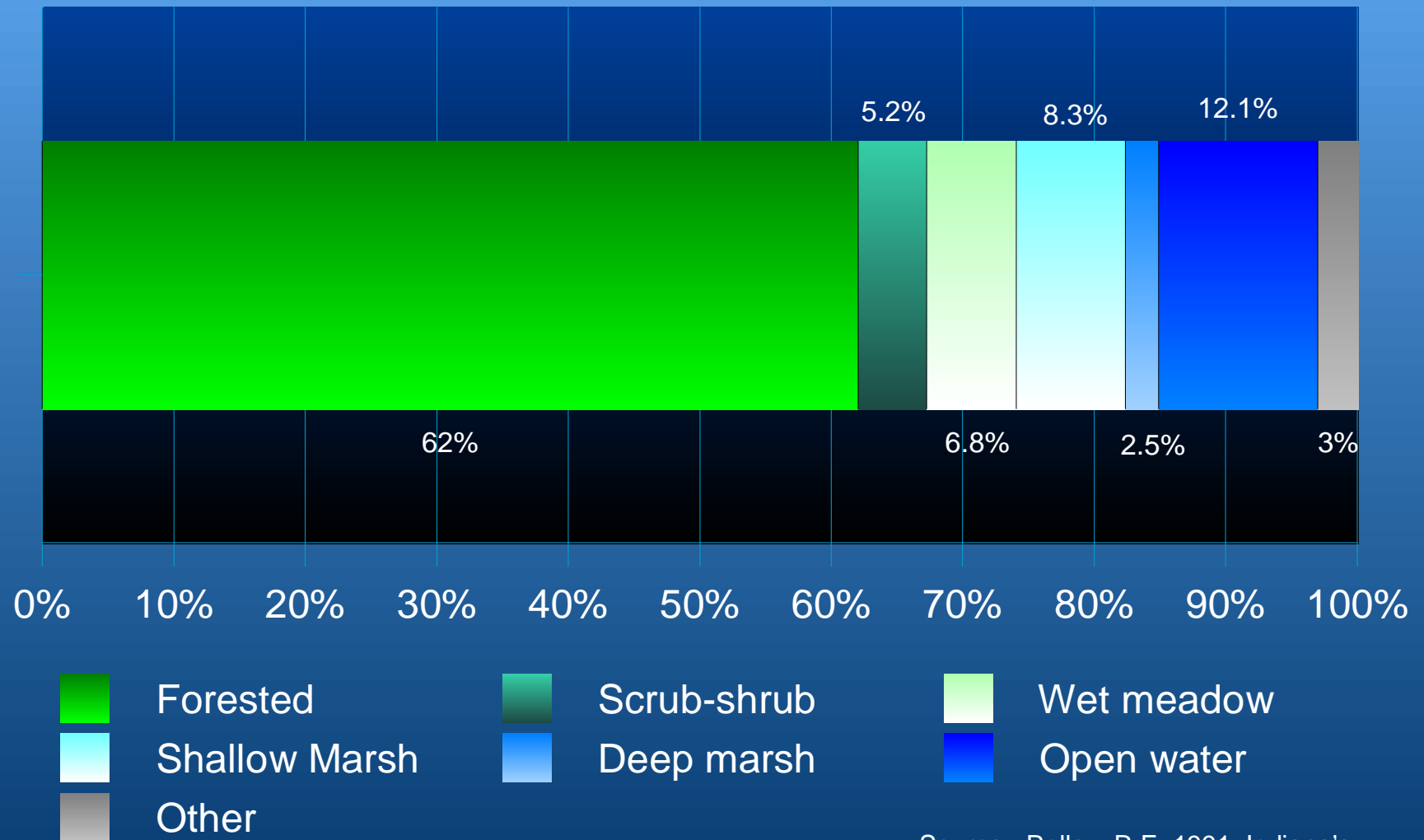
Acres of wetland
within each county



Source - Data from National Wetland
Inventory, U.S. Fish and Wildlife
Service, map by Shelley Liu, IDNR-MIS,
1996



Wetland Types of Indiana



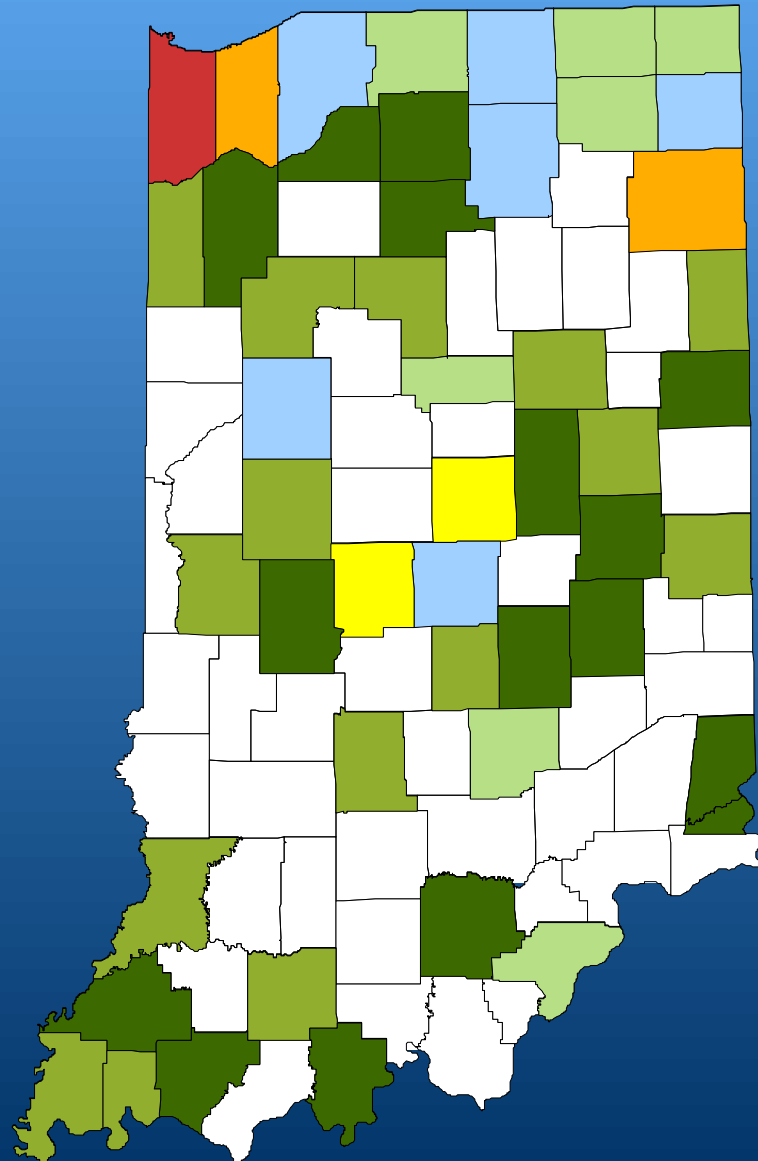
Source - Rolley, R.E. 1991. Indiana's Wetland Inventory, IDNR Wildlife and Research Notes no. 532. 6 pp.

Development - Actions Impacting Wetlands

Number of mitigation sites



Source - James Robb, Indiana Department of Environmental Management, 1999



Activities That Potentially Impact Wetlands

- P Construction
- P Dredging and stream channelization
- P Deposition of fill material
- P Drainage
- P Tiling for crop production
- P Levees
- P Diking and damming
- P Mining
- P Polluted run-off
- P Nutrient loading
- P Non-native invasive species
- P Erosion
- P Logging

Section 401 Water Quality Certification

An overview of the Department of Environmental Management's scope and authority to regulate wetlands and other waters of the state.

What are Wetlands?

The Army Corps of Engineers and the Environmental Protection Agency define wetlands as follows:

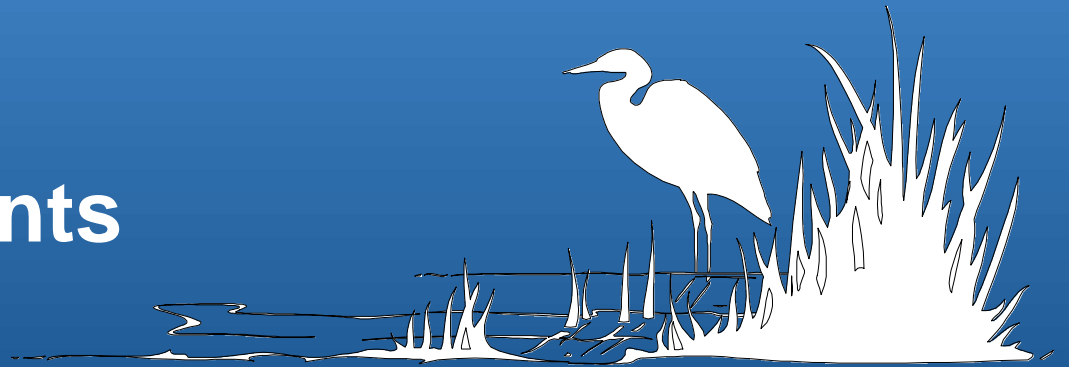
“Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

Jurisdictional Wetlands

P Hydric soils

P Hydrophytic plants

P Wetland hydrology



Regulatory Authority

P Clean Water Act

- Section 404 (U.S. Army Corps of Engineers)
- Section 401 (Department of Environmental Management)

P Indiana Water Quality Standards

- Maintenance of existing uses
- Antidegradation
- Narrative standards
- Numeric standards

Activities Regulated

P Placement of dredged or fill materials within wetlands or other waters

- Bridges
- Seawalls
- Fill placed in waters for development of property
- Fill placed in waters associated with agricultural activities
- Some dredging projects

P Mechanical clearing of wetlands

The Wetland Water Quality Standards Rule Framework

Components of a rule encompassing water quality standards for wetlands in Indiana.

Major Sections of the Rule

- P Applicability
- P Definitions/incorporation by reference
- P Classification of wetlands
- P Wetland antidegradation standard implementation procedures
- P Wetland designated uses
- P Minimum water quality criteria for wetlands
- P Criteria to classify wetlands as OSRW and ONRW
- P Procedures to list wetlands as OSRW and ONRW

Applicability

P The wetland water quality standards established in this rule shall apply to all wetlands of the state.

Definitions / Incorporation by Reference

- P Terms and concepts which are specifically defined in other rules or statutes or which are defined for the purpose of this rule.
- P Other established procedures, methodologies, or related documents which are referred to in the rule and/or used to define criteria or parameters for review.

Classification of Wetlands

P Tier I

P Tier II

- ▶ Wetlands with wetland-dependent threatened or endangered species (TES)
- ▶ Wetlands within 0.5 miles of a site of a wetland-dependent TES
- ▶ Cypress swamps
- ▶ Bogs
- ▶ Fens
- ▶ Dune and swales
- ▶ Muck and sand flats
- ▶ Sinkhole ponds and swamps
- ▶ Marl beaches

Wetland Antidegradation Standard and Implementation Procedures

P Tier I requirements

P Tier II requirements

P Other factors to consider

P OSRW and ONRW requirements

Wetland Designated Uses

P Habitat for aquatic organisms

P Habitat for wetland flora

P Habitat for resident and transient wildlife

P Surface and groundwater movement

P Recreational, educational, scientific and aesthetic

Minimum Water Criteria for Wetlands

- P All other applicable water quality standards
- P Natural temperature variations
- P Natural chemical, nutrient, and dissolved oxygen regime
- P Normal movement of aquatic fauna
- P Natural pH ranges
- P Normal water levels
- P Normal extent of saturation and inundation
- P Hydrological conditions needed to support uses
- P Water quality to support flora and fauna

Criteria to Classify Wetlands as OSRW and ONRW

P Tier II Wetlands

P Wetlands meeting four of six criteria -

- ▶ 80% of plants are characteristic of wetland type
- ▶ State rare or special concern species present
- ▶ Lack of significant anthropogenic degradation
- ▶ Less than 10% of area is covered with exotic plant species
- ▶ No significant alteration of adjacent slopes and uplands
- ▶ Located within or adjacent to managed lands

Procedures to List Wetlands as OSRW and ONRW

P Nomination

P Analysis of proposed wetland

P Notice of rulemaking

P Final decision

The Water Quality Certification Rule Framework

Components of a rule encompassing review
procedures for applications for Section 401 Water
Quality Certification

Major Sections of the Rule

- P Purpose
- P Applicability
- P Definitions/incorporation by reference
- P Application required
- P Public notice
- P Review of water quality certification applications
- P Mitigation
- P Final agency decision
- P Appeals/administrative review
- P Enforcement/compliance

Purpose

P This rule establishes procedures and criteria for the review of applications for state water quality certification required by section 401 of the federal Clean Water Act, 33 U.S.C. § 1341. It is the purpose of this article, consistent with the Clean Water Act, to maintain the chemical, physical, and biological integrity of the waters of the state and achieve no overall net loss of the existing wetlands resource base with respect to wetlands acreage and existing and designated uses in the state.

Applicability

P This rule governs the issuance of water quality certification by the department of environmental management under section 401 of the Clean Water Act, 33 USC §1341. Section 401(a)(1) of the Clean Water Act requires that an applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, that may result in any discharge into navigable waters of the United States, shall obtain, from the state where the discharge does or will originate, a water quality certification that the discharge will comply with applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act.

Definitions / Incorporation by Reference

- P Terms and concepts which are specifically defined in other rules or statutes or which are defined for the purpose of this rule.
- P Other established procedures, methodologies, or related documents which are referred to in the rule and/or used to define criteria or parameters for review.

Application Required

P Application form/content

P Completeness

P Additional information

Public Notice

- P Timing
- P Content
- P Comment period
- P Criteria for public hearing
- P Persons to be noticed
- P Review of public comments
- P Joint notice with U.S. Army Corps of Engineers
- P Supplemental notice

Review of Section 401 Water Quality Certification applications

- P Identification of wetland or water resource
 - Tier I versus Tier II wetlands
- P Assessment of wetland uses
- P Stream/river impact assessment
- P Antidegradation determination
 - Water dependency test
 - Alternatives assessment
 - Socio-economic review for Tier II wetlands
- P Control of stormwater from sites with wetland impacts
- P Time frames for review

Mitigation

P When required

P Ratios

P Criteria for success

P Assessment of mitigation plan

P Location of mitigation sites

P Mitigation banking

Final Agency Decision

P Approval criteria

P Denial criteria

P Waiver criteria

P Conditioning approved certifications

P Revocation of certification

P Modification of certification

Appeals/Administrative Review

IC 13-30 - Enforcement and Legal Actions

Enforcement/Compliance

IC 4-21.5 - Administrative Orders and Procedures Act

Identifying the Needs

An overview of IDEM's efforts to develop rules that address wetland protection, Indiana's regulatory mandates, consistency with other regulations, public involvement, and regulatory efficiency

Wetlands - Worth Protecting

- P Water quality protection
- P Groundwater and surface water recharge
- P Flood protection
- P Shoreline erosion protection
- P Fish and wildlife habitat
- P Timber, fiber, produce, animal products
- P Recreation and aesthetics

Indiana Residents Opinions on Wetlands

Results of a survey conducted as a part of the creation of the Indiana Wetland Conservation Plan - June 1996

P 79% of citizens know wetlands exist in Indiana

P 61% of citizens believe wetlands are declining in Indiana

P 80% of citizens strongly or moderately support efforts to protect Indiana's wetlands

P 78% of citizens strongly or moderately support state regulations designed to protect Indiana's wetlands

Regulatory Mandates

P Clean Water Act Section 401

- ▶ Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate . . . that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act.

P USEPA Guidance - Wetland Water Quality Standards

- ▶ By 1993, states shall develop wetland water quality standards.
- ▶ Applying water quality standards to wetlands is part of an overall effort to protect and enhance the Nation's wetland resources and provides a regulatory basis for a variety of programs to meet this goal.

Rulemaking Considerations

- P Evaluation of current wetland standards and 401 procedures from other states
- P Use of terms and definitions from federal rules
- P Development of mitigation criteria in coordination with federal and state agencies
- P Review procedures reflect IDEM's current Section 401 water quality certification program
- P Addresses issues raised by Indiana Wetland Conservation Plan

Stakeholder Participation

- P AECON Engineers and Consultants
- P American Electric Power
- P Dunes Calumet Audobon Society
- P Earth Source, Inc.
- P Farm Credit Services
- P City of Gary
- P City of Indianapolis
- P Hendricks County Planning
- P Harrison County Planning
- P Hoosier Environmental Council
- P IASWCD
- P Indiana Builders Association
- P Indiana Chamber of Commerce
- P Indiana Coal Council
- P Department of Natural Resources
- P Department of Transportation
- P IN Electric Utility Water Work Group
- P Indiana Energy
- P Indiana Farm Bureau
- P Indiana Manufacturers Assoc.
- P Indianapolis Water Company
- P US Environmental Protection Agency
- P US Fish and Wildlife Service
- P US Army Corps of Engineers
- P Federal Highway Administration
- P Indiana University
- P Purdue University
- P Izaak Walton League of America
- P J.F. New and Associates
- P NiSource
- P Save the Dunes Conservation Fund
- P Save the Dunes Council
- P Sierra Club
- P SIGECO
- P Valley Watch, Inc.
- P Save Our Rivers
- P Lake County Fish & Game Protective Association
- P National Solid Waste Management Association, Indiana Chapter
- P Martin Marietta
- P Cinergy
- P Hoosier Energy
- P Wawasee Property Owners Assoc.
- P Indiana Mineral Aggregates Assoc.
- P NIPSCO
- P Indiana Environmental Institute
- P Eli Lilly and Company
- P Department of Agriculture
- P Natural Resources Conservation Service
- P Hamilton County Surveyor
- P Hoosier National Forest
- P Patoka South Watershed Group
- P AMOCO

Additional Efforts

- P Creation of regional general permits for activities with minimal impacts
- P Public outreach, web page, guidance documents
- P Permit streamlining workgroup with IDNR and Corps
- P Mitigation monitoring
- P Early coordination and joint early coordination
- P Mitigation banking
- P Certification database

Wetland Water Quality Standards and Section 401 Water Quality Certification Rulemaking

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Next Step - Preliminary Adoption
May 10, 2000

Additional information -
<http://www.state.in.us/idem/owm/planbr/wqs/401home.htm>